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ABSTRACTS

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"A.P.I. Special Report to Federal Oil Conservation Board," 99–102
"L'Activité des Volcans de boue en relation avec la structure des plis gazifères et quelques arguments contre la migration du pétrole," Dr. S. Zuber, 668–669
"Art de l'Ingenieur et Metallurgie. Resistance des Materiaux et Donnes Numeriques Diverses," L. Descroix, 670
"Chemical Engineering and Chemical Catalogue." Ed. by D. M. Newitt, 348–349
"Fusion Rotary Retort, Report of Test on." Dept. of Scientific and Industrial Research, 670
"Geology, Text Book of," by James Park, 224–225
"The Geology of Oil, Oil shale and Coal," by Dr. Murray Stuart, 599–600
"Heavy-Oil Engine Working Costs (1925–1926)," : Diesel Engine Users' Assoc., 670
"Lancashire Coalfield. The King Seam" : Dept. of Sci. & Industr. Research, 349
"Nova Scotia Oil Shales, Investigation on the Treatment of," by Prof. A. E. Flynn, 667–668
"Oil Industry," by R. Lilley, 348
"Oil-Field Exploration and Development," by A. Beeby Thompson, 97–99
"Oilfield Exploration and Development, Vol. II., by A. Beeby Thompson, 225–227
"Petroleum Development and Technology in 1925" : Amer. Inst. Min. Met., Eng., 601
"Petroleum - Vademecum," by R. Schwarz, 349
"Power Alcohol Production" : Ministry of Agriculture and Fisheries, 601
"Les Proprietes Physiques des Vapeurs de Petrole et Les Lois de Leur Ecoulement," by Jean Rey, 347
Reviews—*continued*
"Schlomann - Oldenbourg. Technical Dictionary. Internal Combustion Engines," by Karl Schikore, 347–348
"The Scientific Principles of Petroleum Technology," by Dr. L. Gurwitsch, 666–667
"The Theory of Emulsions and Emulsification," by W. Clayton, 600–601
"Tiefbohrwesen, Forderverfahren und Elektrotechnik in der Erdolindustrie," by L. Steiner, 227–231
"Treatise on Sedimentation," by W. H. Twenhofel, 598–599
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